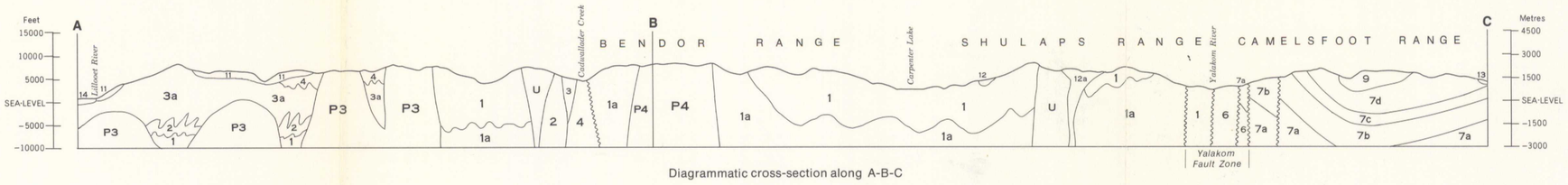
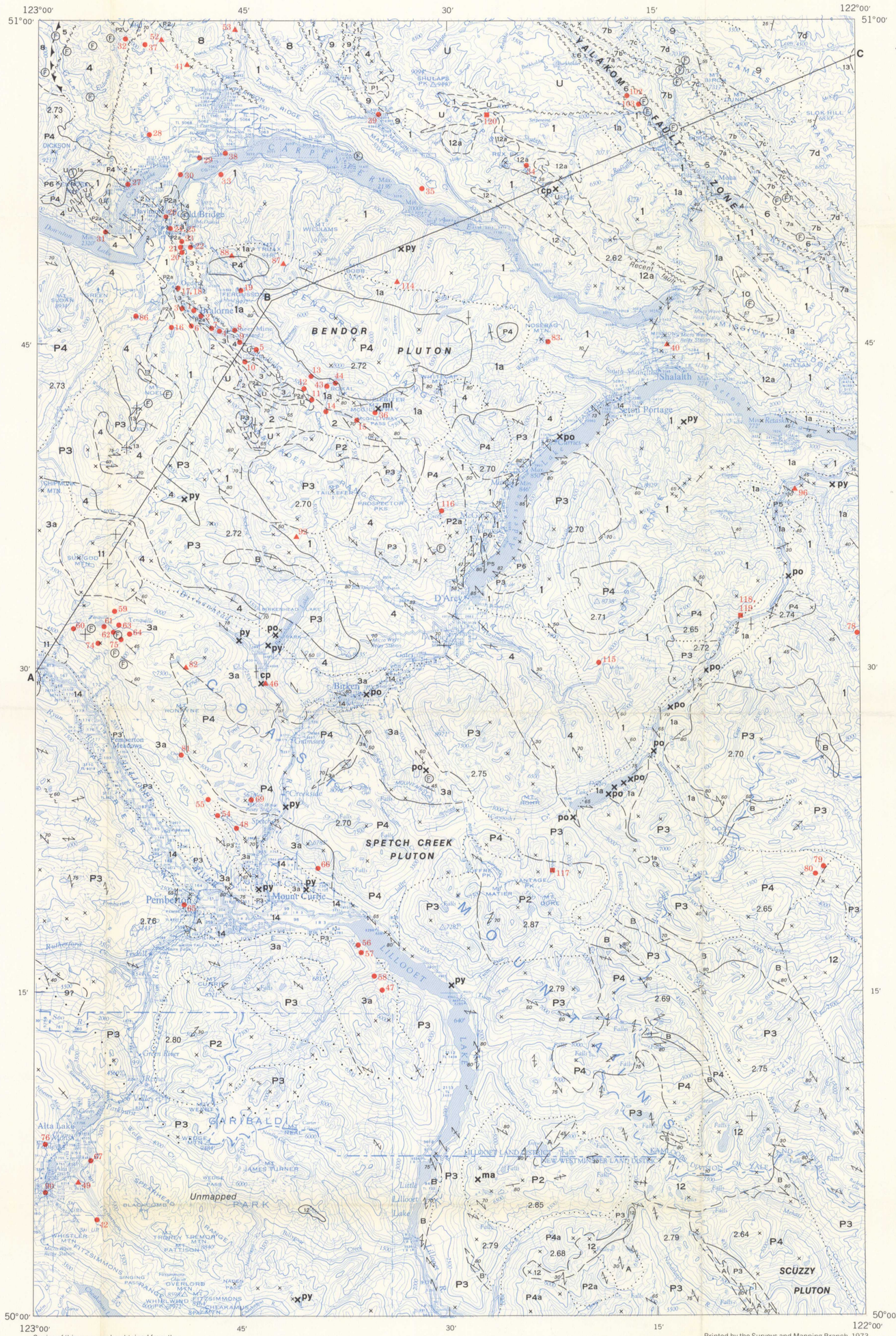
GEOLOGICAL SURVEY OF CANADA
DEPARTMENT OF ENERGY, MINES AND RESOURCES



Diagrammatic cross-section along A-B-C



Copies of this map may be obtained from the Geological Survey of Canada, Ottawa

Printed by the Surveys and Mapping Branch, 1973

LEGEND

CENOZOIC

QUATERNARY
PLEISTOCENE AND RECENT

- **14** Unconsolidated alluvial and glacial deposits

TERTIARY
MIOCENE (?)

- **13** Basalt and rhyolite flows
- **12** Rhyolite and dacite breccia, tuff and flows; 12a, Rexmount Porphyry (intrusive equivalent of 12?)
- ? **P4a** Miarolitic granodiorite and syenodiorite

LOWER TERTIARY

- **11** Andesite flows and breccia; basalt and minor dacite
- **10** Shale, siltstone, sandstone, arkose and conglomerate

MESOZOIC

CRETACEOUS
UPPER CRETACEOUS

- **P4** SCUZZY PLUTON (K-A 70 m.y.): granodiorite

KINGSVALE GROUP

- **9** Arkose, greywacke, shale and minor conglomerate

LOWER CRETACEOUS
TAYLOR CREEK GROUP

- **8** Chert-pebble conglomerate, black banded limy shale, green tuff, volcanic breccia, andesite and basalt

JACKASS MOUNTAIN GROUP

- **7** Undifferentiated; 7a, interbedded carbonaceous argillite and greywacke; minor conglomerate and coal; 7b, greywacke; pebble conglomerate, argillite and gritty sandstone; 7c, argillite; conglomerate and greywacke; 7d, massive greenish greywacke, argillite, gritty sandstone and pebble conglomerate

JURASSIC AND CRETACEOUS
UPPER JURASSIC AND LOWER CRETACEOUS
RELAY MOUNTAIN GROUP

- **6** Argillite; greywacke and pebble conglomerate

JURASSIC
LOWER JURASSIC

- **5** Argillite and shale; minor sandstone, limestone and pebble conglomerate

TRIASSIC
UPPER TRIASSIC

- **U** Ultrabasic rocks
- **4** HURLEY FORMATION: Thin-bedded limy argillite, phyllite, limestone, tuff, conglomerate, agglomerate, andesite, and minor chert
- **3** PIONEER FORMATION: Greenstone derived from andesitic flows and pyroclastic rocks; 3a, andesite breccia, tuff and flows, greenstone; minor rhyolitic breccia and flows, slate, argillite, limestone and conglomerate
- **2** NOEL FORMATION: Thin-bedded argillite; chert, conglomerate and greenstone

MIDDLE TRIASSIC AND (?) OLDER
BRIDGE RIVER GROUP (FERGUSSON GROUP)

- **1** Chert, argillite, phyllite and greenstone; minor limestone, schist; 1a, metamorphosed rock of map-unit 1; mainly biotite schist

METAMORPHIC AND PLUTONIC ROCKS
(Mostly of unknown age)

- **B** Metasedimentary rocks, mainly micaceous quartzite, biotite-hornblende schist, and minor schists bearing garnet, staurolite and possibly sillimanite
- **A** Granitoid gneiss, migmatitic complexes, minor amphibolite and biotite schist
- **P6** Granite
- **P5** Quartz monzonite
- **P4** Granodiorite; 4a, miarolitic granodiorite and syenodiorite
- **P3** Quartz diorite
- **P2** Diorite; 2a, Bralorne Intrusions: Augite diorite, gabbro, minor soda granite and quartz diorite
- **P1** Gabbro
- **U** Ultrabasic rocks: serpentine, peridotite, dunite

Map-unit
Intrusive episode
Mean specific gravity of specimens from pluton 2.85
Outcrop examined (where not otherwise indicated by attitude or other symbol) ..... ×
Geological boundary (defined, approximate, assumed)
Limit of geological mapping
Bedding (horizontal, inclined, vertical, dip not known)
Foliation (horizontal, inclined vertical, dip not known)
Fault or shear zone
Thrust fault
Fossil locality ..... Ⓕ
Minor mineral occurrence observed (Chalcopyrite, cp; magnetite, ma; malachite, ml; pyrrhotite, po; pyrite, py) ..... ×
Accuracy of location of mineral property (from Mineral Inventory Map, B.C. Dept. Mines and Petroleum Resources)
Known within radius of 1000 feet ..... ●
1000 feet to 2 miles ..... ▲
Not known within radius of 2 miles ..... ■

Geology by J. A. Roddick and W. W. Hutchison, 1970 and from earlier reports

To accompany Paper 73-17 by J. A. Roddick and W. W. Hutchison

This preliminary edition may be subject to revision and correction

Geological cartography by the Geological Survey of Canada

Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

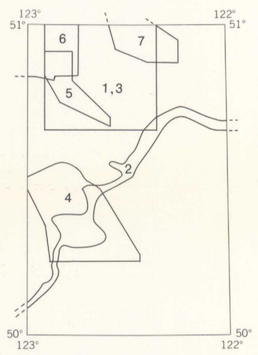
Base-map from part of map published at the same scale by the Department of Lands, Forests and Water Resources, British Columbia in 1967

LIST OF MINERAL PROPERTIES

Map No.		Property No.
92J- 1	Bralorne (Au, Ag)	1661
2	Blackbird and Ida May (Au)	1662
3	Alma (Au)	1663
4	Pioneer (Au)	1664
5	Mix (Au)	1665
6	Native Son (Au)	1666
7	Coronation (Au)	1667
8	Holland (Au)	1668
9	Pioneer Extension (Au)	1669
10	Paymaster (Au)	1670
11	Butte - IXL (Au)	1671
12	Red Hawk and Dan Tucker (Au)	1672
13	Bramoose (Au)	1673
14	Royal (Au)	1674
15	Standard (Au)	1675
16	Short o' Bacon (Au)	1676
17	Grull (Au)	1677
18	Success (Au)	1678
19	Waterloo (Au)	1679
20	California (Au)	1680
21	Whynot (Au)	1681
22	Gloria Kitty and Jewess (Au)	1682
23	Forty Thieves (Au)	1683
24	Arizona (Au)	1684
25	Golden Gate (Au)	1685
26	Haylmore (Au)	1686
27	Pilot (Au)	1687
28	B & F (Au)	1688
29	Congress (Au, Hg)	1689
30	Wayside (Au)	1690
31	Veritas (Au)	1691
32	White and Bell (Au)	1692
33	Reliance (Sb, Au)	1693
34	Spokane (Au)	1694
35	Summit (Au)	1695
36	Empire (Au)	1696
37	Wide West	1697
38	Stibnite (Sb)	1698
39	Primrose (Au)	1699
40	Benn Expl.	1700
41	Charlotte, Ann (Hg)	1701
42	London (Cu, Fe)	1702
43	Chalco 5 (W, Cu)	1703
44	Chalco 12 (W, Cu)	1704
46	N. Texas, Flo, Pen (Cu, Au, Ag, Fe)	1706
47	Apex (Fe)	1707
48	Copper Queen (OWL CR. A Zone) (Cu, Mo)	1708
49	Azure (Cu)	1709
52	Lucky Strike, Ricky	1712
53	Paul (Hg)	1713
54	Owl Cr. B Zone (Cu, Mo)	1714
55	Owl Cr. C Zone (Cu, Mo)	1715
56	Eagle (Cu, Fe, Zn)	1716
57	Lake (Cu, Fe, Zn)	1717
58	Boulder (Cu, Zn, Ag, Fe)	1718
59	Moffat (Eva) (Cu, Ag, Zn)	1719
60	Copper Mountain (Fe, Cu, Zn, Hg)	1733
61	Seneca (Cu, Fe)	1720
62	Wonder (Pb, Zn, Cu)	1721
63	Silver Bell (Pb, Ag, Au, Cu, Zn)	1722
64	Li-Li-Kel (Gridiron) (Ag, Pb, Zn, Au)	1723
65	Pemberton (Cu)	1724
66	Margery (Zn, Fe, Au, Pt)	1725
67	Fitzsimmons (Cu)	1726
69	Owl Mountain (Northstar) (Fe, Au, Ag)	1728
74	Crown (Ag, Zn, Cu, Pb, Fe)	1734
75	Gold King (Ag, Au, Zn, Pb)	1735
76	Cougar (Fe)	1736
78	Index (Mo)	3776
79	Silver Queen (Ag, Pb, Zn)	3221
80	Patrick, (Ag, Pb, Zn)	3222
81	J (Py)	
82	Gin (Yes) (W, Cu, Zn)	
83	Lubra (Flora) (W, Mo)	
86	Stibnite (Lost Gold) (Sb)	
87	Truax (Spruce) (Au, Sb)	
88	Rock (Ag, Sb)	
90	RM (Cu)	
92	Sno (Cy, Mo)	
96	Ample, (Golden Cache) (Au)	
102	Red Eagle (Hg)	
103	Golden Eagle (Hg)	
114	Benboe (Au, Ag)	
115	Barkley Valley Mines (Au, Ag)	
116	Golden Contact, (Brett Group) (Au)	
117	Excelsior, (Jumbo) (Cu, Au, Ag, Pb)	
118	Congress (Au)	
119	Golden (Au)	
120	Yalakom, (Ridge) (Mo)	

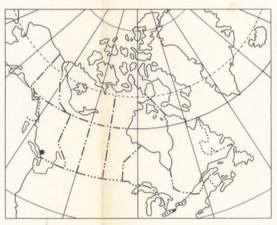
Omitted map numbers do not occur within map-area

Chemical Notations: Silver - Ag; arsenic - As; gold - Au; copper - Cu; iron - Fe; mercury - Hg; molybdenite - Mo; lead - Pb; platinum - Pt; pyrite - Py; antimony - Sb; tungsten - W; zinc - Zn.



INDEX MAP OF AREAS COVERED BY EARLIER REPORTS

1. C.W. Drysdale, 1916
2. C. Camsell, 1918
3. W.S. McCann, 1922
4. C.E. Cairns, 1925
5. C.E. Cairns, 1937
6. C.E. Cairns, 1943
7. G.B. Leech, 1953



INDEX MAP

MAP 13-1973
PAPER 73-17
GEOLOGY

PEMBERTON

(East Half)
BRITISH COLUMBIA

Scale 1:250,000

Miles 4 0 4 8 12 Miles
Kilometres 6 0 6 12 18 Kilometres

Universal Transverse Mercator Projection

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Magnetic declination 1973, varies from 23°40' easterly at centre of west edge to 23°31' easterly at centre of east edge. Mean annual change -2.8''

Elevations in feet above mean sea-level

92N 68-33	92O 29-1963		92P 3-1966	
92K	92J 3-1973		1010A	92I 886A
92F 68-50	42-1963	92G 8-1956	737A	92H 888A

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE AND INDEX TO ADJOINING GEOLOGICAL SURVEY OF CANADA MAPS

G
3401
.C5
1956
G4
omvsc

13-1973

C-1

MAP 13-1973
PEMBERTON
(East Half)
BRITISH COLUMBIA

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